Government of Saskatchewan

Annual Report 1998

Saskatchewan Municipal Affairs, Culture and Housing

Office of the Fire Commissioner

Letter of Transmittal

The Honourable Clay Serby
Minister of Saskatchewan Municipal Affairs,
Culture and Housing
Regina, Saskatchewan

Sir:

I am pleased to present the Saskatchewan Fire Commissioner's annual report for 1998. The report outlines the accomplishments of the Office of the Fire Commissioner and fire losses in the province. Fire losses are reported for the calendar year, while other information provided is for the fiscal year 1998-1999.

In 1998, Saskatchewan continued its downward trend regarding the number of fire fatalities recording only thirteen. This is a considerable improvement over the ten-year average of twenty-two. However, both the total number of fires and associated dollar loss have increased. This increase can be attributed to the improved fire loss reporting system recently implemented by the Office of the Fire Commissioner. This system now allows for reports to be filed much easier, more effectively, and accurately.

Over the last year, the fire service has responded favourably to the challenges of growing expectations and increasing demands from the public. All members of the fire service community deserve thanks for their contribution and willingness to respond positively to these new challenges.

Respectfully submitted

Rick McCullough
Fire Commissioner

INTRODUCTION

The Office of the Fire Commissioner (OFC), in accordance with *The Fire Prevention Act, 1992* and Regulations, provides Saskatchewan communities, fire departments, and emergency service organizations with information, education and leadership programs and services to protect people, property and the environment from fire losses.

This is accomplished through the:

- promotion and encouragement of fire prevention and the protection of life and property against fire;
- collection and dissemination of information respecting fires in Saskatchewan;
- keeping of records for all fires occurring in Saskatchewan, including the cause, origin, and circumstances of each fire and other information respecting each fire that the Fire Commissioner considers appropriate;
- investigation of fires or by causing fires to be investigated and by holding inquiries into any fire when the Fire Commissioner considers it necessary to do so in order to ascertain the cause, origin and circumstances of the fire;
- administration and enforcement of the Act and regulations within park land constituted pursuant to *The Parks Act* or a regional park established pursuant to *The Regional Parks Act, 1979*;
- provision of training courses in fire fighting and prevention; and
- performance of any other duties that the Minister may direct.

The staff of the OFC consists of 14 full-time employees. This includes the Fire Commissioner, two Fire Prevention Officer Supervisors; eight Fire Prevention Officers; one Statistician; and two administrative support staff. The head office of the OFC is located in Regina with a branch office in Saskatoon.

Fire Losses

Although Saskatchewan continues to record significant losses due to fire, there is reason for some optimism in the 1998 statistics.

In Saskatchewan approximately 3,000 fires result in 20 deaths, 80 injuries and $40 million direct dollar loss each year.

In 1998, Saskatchewan recorded 13 fire-related deaths or 1.3 per 100,000 people. This number is down from the 1997 total of 23 and is less than the national average, which currently reflects 2.0 fire-related deaths per 100,000 people.

Of the deaths recorded, it is worth noting that five of these fatalities were either the result of a suicide or homicide.

Similar to other provinces, the largest number of fire related fatalities (92%) occurred in the home. In Saskatchewan, the major causes of death can be attributed to child fire play and the misuse of smoking materials. Again, this is consistent with most other jurisdictions.

Fire Prevention

Preventing fires from starting is the best method of reducing losses. The Learn Not To Burn® program and the implementation of Risk Watch™ are major programs aimed at reducing fire losses by increasing fire awareness and safety.

Establishing a public education contact in every community so that public education programs are available and ongoing in communities has been a focus of the OFC. Currently, 170 communities have a public education contact person who can assist with the delivery and promotion of fire safety education programs.

Ninety people, representing both volunteer and career fire departments, attended the first ever Fire and Life Safety Education Conference held in Saskatchewan. The conference, sponsored by the OFC, was held February 5th to 7th at the Echo Valley Conference Centre in Fort Qu'Appelle.

The conference provided participants with knowledge and motivation to strengthen public fire education programs in their own communities. Public education is the single activity with the greatest potential for reducing fire losses.

Speakers from across North America presented workshops throughout the two days. The level of enthusiasm generated by the conference and the positive comments received from attendees was a strong indication that this type of event is of great benefit and therefore one which needs to be continued in the future.

The purpose of the conference is consistent with the high priority placed on public education by the OFC. Such activities allow fire departments and public education contacts to obtain training, which enables them to conduct programs that will make their communities safer.

Fire Prevention Officer's work closely with local fire chiefs and municipal inspectors in the completion of routine fire prevention inspections. As well, the OFC has a variety of brochures, pamphlets and fire safety videos available through its support system to members of the public.

Fire Investigation

The OFC investigates fires involving deaths, injuries, where suspicious circumstances are reported and where the fire involves a provincially owned, leased or occupied property. Officers are also available to assist the local authority upon request in an investigation to determine origin, cause and circumstances surrounding the fire. Fire Prevention Officers investigated more than 80 fires of specific interest in 1998.

The "Team Concept" of police, fire and insurance working together on fire investigations continues to bring positive results within the province. The OFC continued to support and improve the team concept through 1998 by partnering with representatives from the other members of the "team"in the area of training and education.

Advisory and Consulting

Advisory and consulting services offered by the OFC cover a wide spectrum of individual services. The primary focus of this program is to assist fire departments and municipalities to provide an effective and efficient fire prevention and suppression service to their own community.

Fire Prevention Officers provide the local assistants with detailed information on available programs. They also provide a Handbook that contains reference material covering administration and organization of a fire department, public education activities, inspections and code enforcement, fire investigation and reporting of fire losses, and other valuable information. Where local concerns or problems are identified, Fire Prevention Officers assist the local assistant in resolving them. In 1998 Fire Prevention Officers conducted 306 joint evaluations with local assistants.

Services also include assisting the local authority in the enforcement and interpretation of *The Fire Prevention Act* and regulations; the implementation and delivery of public education programs; organizing and implementation of fire fighter training; and the provision of assistance on any matter pertaining to fire prevention and suppression.

Certification and Training

Training for fire fighters is provided by the OFC through a provincial network of adjunct fire service instructors. The Office also provides certification of fire service members through utilizing both a provincial system and an international system of certification. The OFC has been recognized by The International Fire Service Accreditation Congress (IFSAC) and the National Professional Qualifications System (NPQS) and has been accredited to issue certificates in a number of program areas consistent with international recognized standards. An Evaluation and Certification Guide, published by the OFC, is available to all fire departments and describes in detail the certification system in Saskatchewan.

In 1998, the OFC provided international certification to two persons under NFPA Standard 1035, *Public Fire and Life Safety Educator*, six persons under NFPA Standard 1001, *Professional Qualifications for Fire Fighters* and 77 persons under NFPA Standard 1041, *Fire Service Instructor*. The demand for this service continues to grow.

Program Support

The program support area provides a variety of services to municipal administrators, fire department members, members of the public and other interested parties.

Certification and training records are maintained for all fire department members.

Complete technical reference libraries are updated and maintained for use by members of the public, architects, contractors and staff.

Training modules and emergency videos on fire prevention and education for all ages and interest groups is updated annually. Video packages are loaned to a variety of government departments, fire departments and other agencies on a regular basis.

The Fire Commissioner's newsletter, published four times a year, focuses on specific fire hazards associated with Christmas, spring, summer and fall activities. The newsletter identifies topics of current interest to the fire service and serves to announce upcoming seminars, workshops and conferences.

The OFC maintains records of fire losses as a means to analyze why fires occur and to help determine methods of reducing fire losses. The information gathered assists in the development of many programs related to fire safety. This includes such areas as flame resistant children's pyjamas, child resistant lighters, flame resistant tent materials, and flame resistant carpeting. It is also used to develop new safety legislation and regulations, training programs for fire fighters and public fire prevention education programs, which all contribute to a reduction of fire losses. The fire loss information is widely distributed and used nationally, provincially and locally by those interested in reducing fire losses.

Every fire which occurs in the province must be reported to the OFC. The reporting system is designed to allow fire departments to report fires easily and accurately, and to obtain fire loss information as well. Fire reports are mailed, faxed or provided verbally via a 1-800 number.

One major step in simplifying fire incident reporting has been the implementation of electronic reporting. Fire departments may now report fires directly to the OFC via computer files.

In 1998, the electronic data warehousing and analysis system for fire loss statistics was further upgraded. A number of correlative programs were implemented to encourage reporting and gain timely and accurate fire incident reports from fire departments, insurance companies and local assistants. These programs, and others, will be ongoing as the OFC works to improve the fire loss statistical gathering and analyses system.

Statistical analysis is conducted and information maintained regarding the number of fires, deaths, injuries and cause and circumstances surrounding each fire. This information helps identify the need for possible code changes or public education campaigns that could serve to reduce or eliminate such losses. As well, it serves to support inquiries from provincial and federal government departments, fire departments, news media, insurance personnel, police and other interested parties.

Town and building reports are filed in the event the authority having jurisdiction or other interested parties may require information. These files are available from the OFC upon request.

The Fire Commissioner hears appeals on orders issued by municipal inspectors and local assistants. In 1998, six formal appeals regarding fire orders were heard and resolutions reached.

Partnerships

Maintaining effective province-wide fire prevention programs could not be accomplished without partnerships.

The OFC provides ongoing support to the Saskatchewan Association of Fire Chiefs, the Saskatchewan Volunteer Fire Fighters' Association and the Saskatchewan Chapter of the International Association of Arson Investigators. This is accomplished through involvement in regional and annual meetings, by providing materials and staff to assist the associations in training program delivery and by providing technical services as required.

The OFC staff maintain relationships with agencies such as the Prairie Loss Prevention League, Architects' Association and Construction Specifications Canada to provide technical expertise on matters of fire prevention, protection and safety.

Additionally, the OFC maintains its working relationship with the Royal Canadian Mounted Police, local police services and insurance companies by providing training and technical assistance in the investigation of fires.

The OFC has established working partnerships with many groups interested in fire prevention and protection. These cooperative efforts are intended to get the public, local organizations and other stakeholders more involved in fire prevention and safety efforts. Such partnerships are critical to the future delivery of services and programs.

Corporations have joined with organizations such as Fire Prevention Canada to become more involved in public education program delivery. The Canadian Tire Corporation is sponsoring a good portion of the Canadian Learn Not To Burn® curriculum, which is now being introduced to Saskatchewan schools. Other businesses such as Canada Trust, Investors Group and Permanent Trust, have also added their support to public education fire prevention programs.

Future Directions

The Minister responsible for the OFC established a Fire Service Joint Council (FSJC) that will provide advice and guidance on issues relevant to the fire service. The Council, chaired by the Fire Commissioner, is made up of representatives from the Saskatchewan Association of Fire Chiefs, the Saskatchewan Volunteer Fire Fighters' Association and the Saskatchewan Professional Fire Fighters' Association.

This initiative will serve to strengthen partnerships within the fire service, advance issues of relevance to the Government and provide an ongoing review of current and important matters faced by the emergency response community. The Council has met several times and has been able to advance a number of significant issues like the Emergency Services Telecommunications Program (ESTP), incident reporting and the Occupational, Health and Safety requirements.

The OFC continues to work with communities, businesses, agencies and associations throughout the province to ensure a high degree of cooperation exists for the common purpose of reducing fire losses.

Areas of co-operation in fire prevention, public education and fire investigation will be expanded. Building stronger partnerships will provide opportunities to lower costs, reach new clients, sustain existing programs and improve services. The OFC will provide leadership and direction to local authorities placing greater emphasis in the areas of public education and training. Training local assistants to provide fire prevention and education programs within their own community will be further addressed in 1999.

To improve response agency communication, $2 million has been dedicated to upgrade radio communication systems for fire departments. The program is called the ESTP and has been placed under the Fire Commissioner for management and administration. Fire departments will be encouraged to migrate towards Sask Tel's 800 Mh_z trunked system.

The OFC will continue to provide support and expertise for the investigation of fires, and training of local fire, police and insurance personnel. The office will work with organizations throughout the province to make training more accessible. Program support continues in co-operation with the Saskatchewan Chapter of the International Association of Arson Investigators, Saskatchewan Volunteer Fire Fighters Association, the Saskatchewan Association of Fire Chiefs and Community Colleges.

The OFC continues to work with organizations throughout the province to make training more accessible while expanding cooperation in the areas of fire protection, public education and fire investigation by building stronger partnerships.

Emphasis of the OFC programs will be in the direction of developing self-sufficiency at the local level. Training of local fire chiefs and training officers to provide fire fighter training and education programs within their own community will be further expanded in 1999-2000.

The roles of the newly established FSJC will be strengthened as initiatives for the fire service are advanced.

Promoting greater regional cooperation and integrating resources, will allow municipalities to deliver services that they otherwise could not afford to deliver. This will be done by concentrating efforts to develop and organize a volunteer structure within each municipality and/or region. Such efforts are needed in order to secure a large and broad enough volunteer base to develop community support in the delivery of fire prevention and education programs.

The FSJC is in a better position to gain support for a system of greater regional cooperation since it comprises representatives from the three major fire service associations in the province and the OFC. The FSJC will serve to improve consultations and communications regarding the administration of legislation, regulations, codes and standards. This will strengthen relationships between the province and its fire services stakeholders.

Role and Responsibility Review

In 1998 a role and responsibility review was carried out for the OFC. It is anticipated that the recommendations of the review will be approved by Cabinet in early 1999 and the mandate prescribed by *The Fire Prevention Act, 1992* continued. The final report reflects the merits and value of the OFC program and outlines a clear mandate for a strong future.

The key roles for the OFC will be to:

- continue to set the overall legislative and regulatory framework for fire services, in consultation with the FSJC and local fire authorities;

- provide technical information on the needs and capacities of the various municipalities to assist in developing the frameworks for intermunicipal organization;

- work with municipalities that have been brought into discussions on regionalization by the FSJC to help work out intermunicipal agreements;

- provide information and guidance to the FSJC in its efforts to develop a regionalized fire system with a strong volunteer support base;

- demonstrate support for local authorities through continued advisory services and training, particularly in the areas of plans review, inspections and investigations, and through support of emergency services infrastructure (e.g. telecommunications) needs;

- continue to focus on developing inventories of fire prevention equipment and collecting information on response levels so that the OFC can provide accurate and up-to-date information to municipalities, the FSJC and potential regions on local needs and capacities;

- develop, publicize and support the basic standards for fire services in the province, including training, operational requirements and educational programs such as the Learn Not To Burn® program;

- work on developing training programs to build on the "train the trainer" approach that can focus on regional fire services authorities as they become established; and

- demonstrate ongoing commitment to a more locally autonomous fire service delivery structure by maintaining its policies of non-intervention in areas of municipal services and allowing issues to be resolved through existing non-provincial mechanisms.

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Figure 1: Fire losses by Fixed Property Use

	# Fires	Total $ Loss	# Injuries	# Deaths
Agricultural Products Storage - unclassified.	2			
Agricultural products. boxed, crated, packaged for storage.	1			
Agricultural products bulk storage. No barns.	17	93,556		
Agricultural supply storage.	2			
Amusement centre. Excludes bowling and billiard.	2			
Animal barn, cattle, pigs, horses other livestock.	57	1,287,739		
Apartment, Tenement, Flat - unclassified (describe).	47	2,437,526		
Apartment, Tenement, Flat- 3 to 20 unit with business.	3	2,000		
Apartment, Tenement, Flat-1 or 2 unit with business.	1	17,000		
Apartment, Tenement, Flat-1 or 2 unit without business.	5	74,600	1	
Apartment, Tenement, Flat-20+ units.	16	6,900		
Apartment, Tenement, Flat-3 to 20 unit - No business.	24	75,351	7	
Arena, stadium, amusement/entertainment tent.	2			
Asphalt, coal products. No coke ovens in iron/steel works.	1	5,000		
Automobile. Includes cars and ambulance.	508	1,515,589	2	2
BBQ (outside).	11		1	
Bakery product manufacturing.	2			
Bank.	1		1	
Barn storage. Excludes silo, and animal barn.	2	185,000		
Boat sales, pleasure craft. No marinas/boat repair.	1	0		
Bowling alley.	1	1,500		
Brush and grass on open land, field. Excludes forests.	517	205,855	10	1
Buildings under construction.	1	1,000		
Buildings under demolition.	1			
Bus, trackless trolley.	5	37,908		
Bus, truck and fleet, automobile dealer and taxicab.	1			
Business and Personal Services Facility Misc.	3	22,848		
Camper on or off truck.	1	712		
Camping trailer (Tent trailer).	5	77,000		
Chemicals, Petroleum, Paints, Plastics-unclassified (fertilizer).	1	265,000	1	1
Children's playhouse.	2			
Church, chapel.	3	23,000		
Church, hall.	1	486,462		
Coal, coke, briquette and charcoal.	1	10,000		
College, university.	2			
Construction equipment. Excludes crane, grader.	9	480,440		
Contractor's sheds (office or utility trailer).	3	9,500		
Corral.	5	60,080		
Cow and cattle production. Excludes milk processing.	1			
Crops, orchards, straw stacks and hay stacks or bales.	52	334,350		
Dormitory - unclassified (group home).	2	123,500		
Drive-in lunchroom.	3	0		
Dumps. Excludes enclosures to burn.	19	1,313		
Dwelling, farm (1-family).	13	308,219		
Dwelling, one- and two-family - unclassified.	5	4,000	0	
Dwelling, seasonal uses - in season (1-family).	23	496,944	0	0
Dwellings, seasonal use - in season (2-family).	1	10,000	0	0

	# Fires	Total $ Loss	# Injuries	# Deaths
Dwelling, year-round use (1-family).	481	9,760,415	18	4
Dwelling, year-round use (2-family).	10	141,720	0	0
Electric light and power distribution system.	1			
Electrical and electronic machinery manufacture.	1			
Electronic Equipment - unclassified.	1			
Elementary school. Includes combined kindergarten.	12	1,800		
Elevators, grain, commercial.	2			
Exhibition hall, exposition hall.	1	200,000		
Farm Facility-unclassified.(fish hatchery, watertrough, and cat breeder).	7	4,000		
Farm tractor and equipment, grain dryer, harvester, etc	278	4,105,470	1	1
Fences, poles, railroad ties.	55	1,300		
Fertilizers, peat moss.	2			
Florist shop, greenhouse.	1		1	
Food or Beverage Establishment - unclassified.	2			
Freight, box, tank, hopper, container, etc.	2			
Furniture, fixture, bedding manufacture.	1	5,000		
Gas distribution system, pipeline.	1	21,582		
Gas manufacturing plant.	1			
General auto parking garage. Excludes repair shops.	5	70,500		
General business office.	4	126,800		
General hospital.	1			
General truck. Non-flammable cargo, tow, grain,,jeep, mail, van.	385	2,147,331	2	2
Ground Transport Vehicle -unclassified (bicycle, flatbed not attached).	5	11,200		
Grounds keeping equipment - lawnmowers, irrigation equip.	4	8,885		
Hardware store.	1	1,600,000		
High School. Includes combinations.	2	10,000	5	
Home for the aged - unclassified (describe).	2	200		
Home for the aged with nursing staff.	3	100		
Hospital, Sanatorium, Clinic - unclassified.	1	.		
Hotel, Inn, Lodge - seasonal use - in season.	1	.		
Hotel, Inn, Lodge - unclassified (describe).	1	4,000		
Hotel, Inn, Lodge - year round use.	12	966,030		
Ice rink (code as outside for outside rink), curling rink.	1	3,700		
Individual residential parking in one-storey garages.	78	849,298	1	1
Industrial Manufacturing Properties - unclassified.	7	100	1	
Industrial truck, forklift, streetsweeper, garbage, skidder, gravel	10	181,068		
Jail, municipal or provincial.	1			
Laundry (self-serve).	2	7,000		
Laundry, dry cleaner. Excludes processing.	1			
Library.	2	2,500		
Livestock storage.	1	4,000		
Lumberyards, building materials. Excludes storage.	1	2,000,000		
Machinery manufacturing. No elect. mach. and appliances (machine shop on farm	2	217,096		
Machinery.	1			
Mailboxes.	3			

	# Fires	Total $ Loss	# Injuries	# Deaths
Mall. Includes only the common public area.	3	56,062		
Market, grocery stores.	3	161,000		
Mental hospital, treatment of mental patients only.	2			
Mercantile Miscellaneous - unclassified (computer store).	2			
Metal parts.	1			
Metal, Mach., Electrical Appliance-unclassified.	2	11,182		
Miscellaneous-unclassified(portable welder, human only).	44	75,000	2	
Mobile Home, Trailer - unclassified.	2			
Mobile home, RTM home manufacturing constructing plant.	1	100,000		
Mobile home.	31	734,219	3	1
Motor Hotel, Motel - 3 to 20 units.	1			
Motor Hotel, Motel - unclassified.	2	1,000		
Motor home, camperized van.	14	118,756		
Motor vehicle repair garage/paint shop. No car washing.	6	109,500		
Motor vehicles and trailer sales.	2	500,100		
Motorcraft (20m and under over-all length).No outboards.	1	7,670		
Motorcycle.	1	4,000		
Non self-propelled vessel. Excludes sailboat.	5	47,200		
Office - unclassified.	2	40,000		
Outbuildings - unclassified. (doghouse, gazebo).	2	35,018		
Outdoor Property-unclassified(bonfire, shopping cart).	38			
Paper and paper products storage, paper recycling bins.	1			
Pet store, animal hospital. Includes kennels.	1	40,000		
Petroleum refineries (Strathcona Refineries).	1			
Petroleum/gas well with reservoir & batteries, etc...	5	328,258		
Plastic products manufacture.	2	440,000		
Prison, Jail, Reformatory - unclassified (describe).	1			
Private service station.	1	130,000		
Rail Transport Vehicle and Equipment – unclassified.	2			
Railway yard.	2			
Recreational vehicle (quad, trimoto, odyssey)	2			
Residential Miscellaneous - unclassified (detached garage converted).	4			
Restaurant.	15	1,041,911		
Sawmill, planing mill, wood products mill.	6	500,000		
School, college or university dormitory.	1			
Scrap and junkyards.	2			
Semi-trailer truck.	8	307,600		
Shed. Includes implement shed.	97	1,606,409	4	
Silo on farm. Excludes bulk storage of grain.	1	47,000		
Slaughtering, preparation, preserving of meat/poultry (meat smokers).	7	92,083	2	
Snowmobile.	14	63,063		
Special Connecting Thoroughfares – unclassified.	1			
Special Vehicle-unclassified(fire, welding, insulation, golf cart, etc.	2	4,191		
Storage Properties - unclassified (taxidermy warehouse).	11	4,500		
Storm and weather, bomb or fallout shelter.	1	1,650		
Swimming facility.	1			
Theatre, Studio, Auditorium - unclassified.	1	150,000	1	

	# Fires	Total $ Loss	# Injuries	# Deaths
Tillers.	1	3,000		
Trash and rubbish. Excludes industrial facilities.	856	28,416	1	
Travel trailer, holiday trailer.	9	33,168		
Trees, shrubs. Includes individual trees only.	23			
Tunnel. Includes underpass over 30m in length.	3	16,500		
Under Construction or Demolition: Vacant - unclassified	2	100		
Unoccupied property, property left unoccupied over 30 days	6	12,031		
Vacant property, without contents, or condemned.	12	28,665		
Vehicle and non-motorized hauling vehicle.	2	23,000		
Vehicles Storage - unclassified.	4			
Warehouse.	7	11,672		
Watercraft - unclassified (canoe).	1	1,500		
Wood, Furniture, Paper, Printing - unclassified (peat moss).	3	166,000		
Grand total	**4066**	**38,192,411**	**65**	**13**

A blank box in the "Total Loss" column indicates no reported loss value by fire or insurance

Figure 2: 10 Most Frequent Property Classes Involving Fire Losses

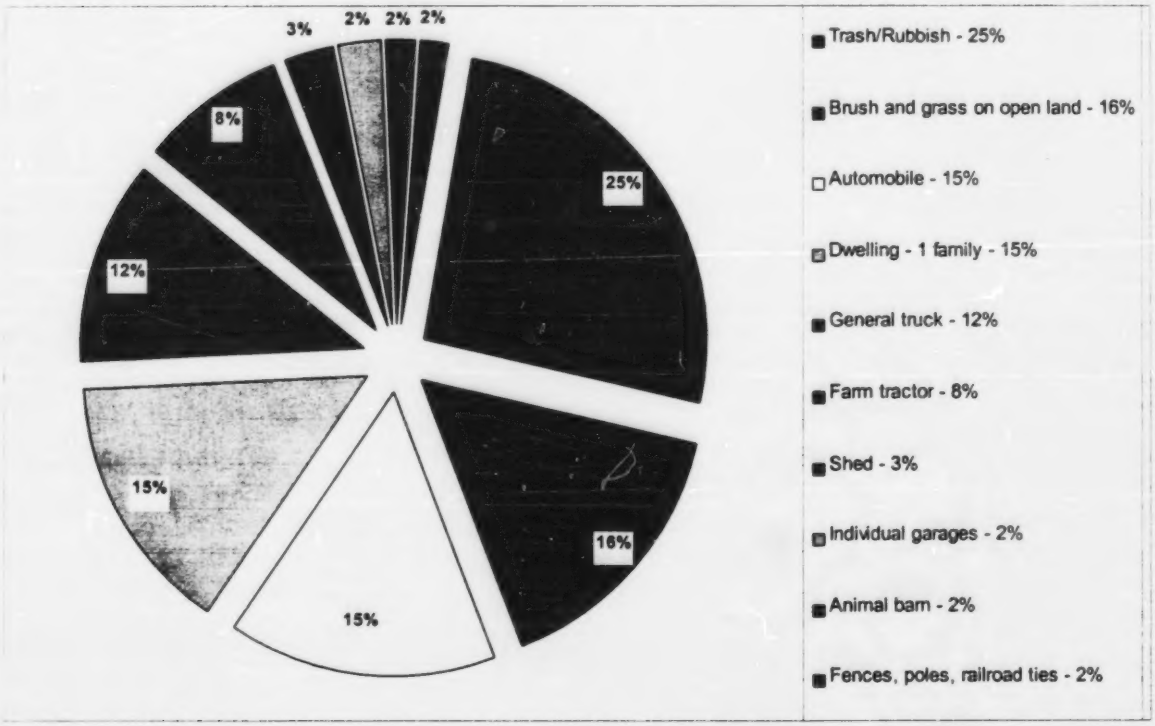
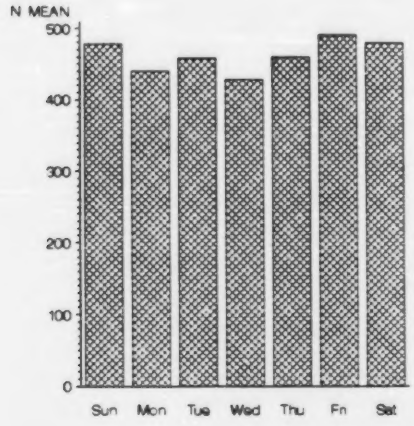
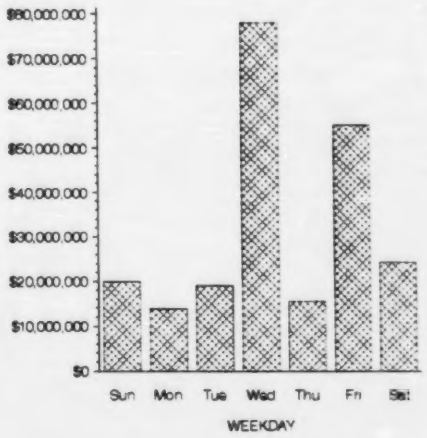


Figure 3: Average Number of Fires and Losses by Day of Week

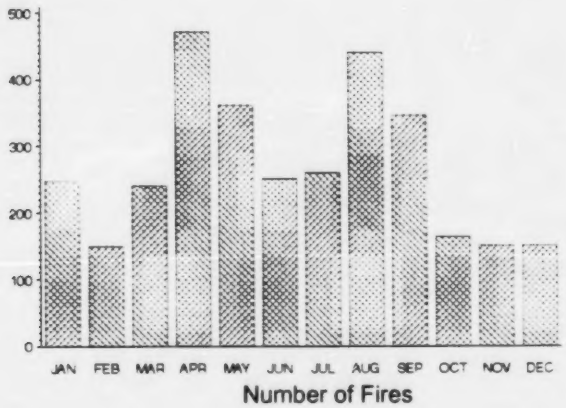


Number of Fires

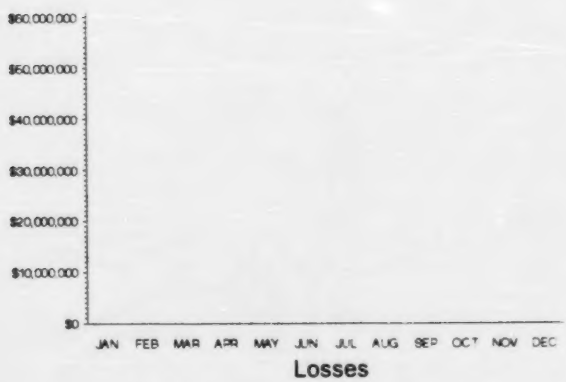


Losses

Figure 4: Average Number of Fires and Losses per Month



Number of Fires



Losses

Figure 5: Fatal Casualties by Sex and Age

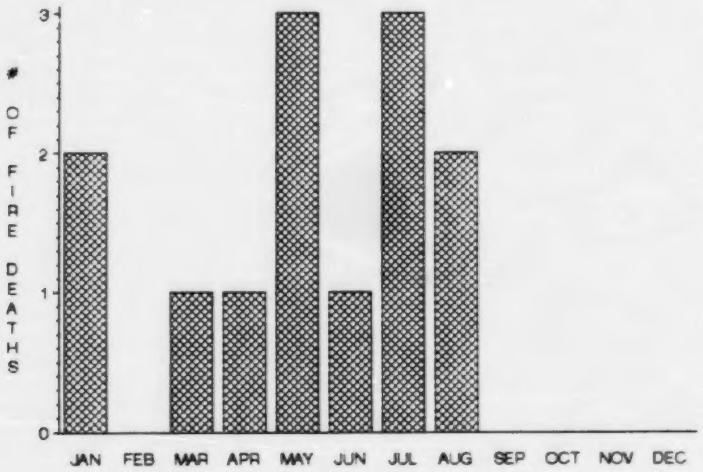
Age in Years	0-5	6-10	11-16	17-20	21-25	26-35	36-45	46-55	56-65	+ 65	ALL
Female	1					1	1			1	4
Male			1			2		2	1	3	9
ALL	**1**		**1**			**3**	**1**	**2**	**1**	**4**	**13**

Figure 6: Injured Casualties by Sex and Age

Age in Years	0-5	6-10	11-16	17-20	21-25	26-35	36-45	46-55	56-65	+ 65	ALL
Female		1	1	1	1		1	2			7
Male			3	1	3	8	12	2		1	30
ALL		**1**	**4**	**2**	**4**	**8**	**13**	**4**		**1**	**37**

Unreported Sex of casualties = 28

Figure 7: Deaths and Injuries by Month



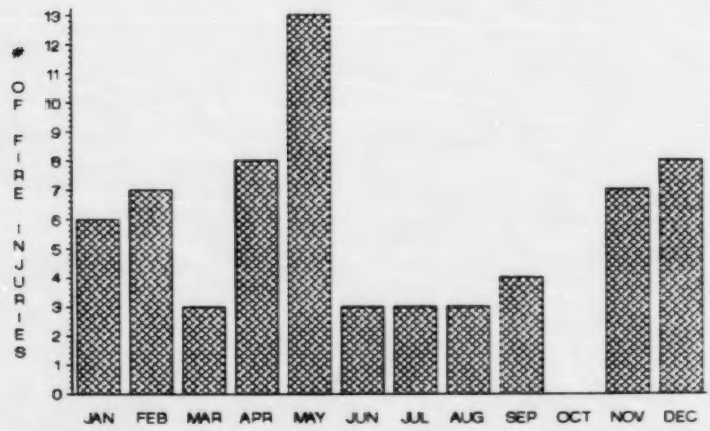


Figure 8: Fire Injuries by Act or Omission

	Minor* Injury	Light* Injury	Serious* Injury	Total
Accident (for example candle left burning).	2		2	4
Child playing with.		2	1	3
Design deficiency.	1			1
Human failing - cannot be determined.	6	1	3	10
Inadequate control of open fire.	1	1	3	5
Incendiary			1	1
Mechanical/electrical failure, malfunction – undetermined.	1	1		2
Miscellaneous-unclassified. (lightning, truck too high for bridge).	11	6	1	18
Misuse of source of ignition - unclassified (setting off Fireworks).		1	1	2
Overfuelling.		1		1
Part failure, leak, and break.	1		1	2
Smoker's material.	6	1	1	8
Suspicious	6	2		8
Total	**35**	**16**	**14**	**65**

* **NOTE**: Injuries are defined as;
MINOR: meaning an injury not requiring treatment or minimal treatment (band aid).
LIGHT: meaning an injury requiring treatment, but not hospitalization.
SERIOUS: meaning an injury requiring hospitalization and treatment.

Figure 9: Fire Deaths by Act or Omission

Act or Omission	#
Accident (for example candle left burning).	4
Suspected impairment by use of alcohol/drugs/medication.	2
Child playing with.	1
Human failing - cannot be determined.	1
Mechanical/electrical failure, malfunction - undetermined.	1
Miscellaneous-unclassified. (lightning, truck too high for bridge).	1
Smoker's material.	1
Suspicious	1
Temporary loss of judgement suspected (includes panic).	1
ALL	**13**

Figure 10: Casualties by Time Period

	Number of Fires	%	Fire Deaths	%	Injuries	%
Unreported time of fire	56					
1. 10:30pm - 6:29am	700	17.5	2	15.4	10	15.4
2. 6:30am - 2:29pm	1011	25.2	3	23.1	24	36.9
3. 2:30pm - 10:29pm	1795	44.8	5	38.5	25	38.5
4. 10:30pm - 6:29am	280	7.0			3	4.6
Reported as "Unknown"	224	5.6	3	23.1	3	4.6
Total	**4010**	**100**	**13**	**100**	**65**	**100**

Figure 11: Fire losses by Source of Ignition

	# Fires	Total $ Loss	# Injuries	# Deaths
Appliances and Equip-Unclassified.(fogger, fan, in-car warmer, gas pump).	19	130,831		
Attached structure (exposure)	24	314,004		
Bar-b-q starter	1	15,000		
Battery, rectifier.	12	46,291		
Bearing, belting, conveyor, brake (tire spinning &overheating).	80	784,377		
Candle, taper.	15	208,965	2	
Central air conditioning and refrigeration equipment.	9	290,469	4	
Central heating unit. (furnace/boiler/stoker).	25	707,403	1	
Chemical reaction, spontaneous combustion.	11	348,812		
Chimney can not be determined	6	209,000		
Cooking Equipment - Unclassified (wood burning stove, meat smoking equip).	22	731,737		
Cutting torch.	23	339,596		
Deep fat fryer - separate appliance.	4	60,700		
Detached structure (exposure)	37	372,828		
Dryer for clothes.	17	122,828		
Electrical Distribution Equipment - Unclassified (car cigarette lighter).	231	3,837,999	2	1
Electronic equipment, communications.	1			
Explosive.	1		1	
Exposure - Unclassified -describe (exposure)	31	159,575		
Factory built chimney	3	31,000		
Factory-built, metal chimney. - (DO NOT USE)	4	5,000		
Fireplace	6	26,161	1	
Fireworks	3			
Flue pipe, vent connector.	1			
Fluorescent lamp. Includes ballast.	1	40,893		
Food warming appliance, portable	1	10,000		
Forest, tree(s) (exposure)	2	15,000		
Free standing fireplace - (DO NOT USE)	7	42,300		
Fry pans, grills not on stove.	2	8,888		
Grass, shrub, brush, scrub (exposure)	67	196,228		
Heat tape	1	16,000		
Heating Equipment - Unclassified.	22	969,528	1	
Hot ashes, embers not associated with smoker's material, incense.	11	20,000		
Igniting Object - Cannot be determined.	695	321,496		
Igniting Object - Unclassified (describe) (flint stove lighter).	623	8,682,717	22	2
Incandescent lamp, lightbulb. Includes lantern, spotlight, flashlight, heat lamp	6	180,000	2	
Industrial oven. Excludes oven used for food preparation, see manual	1	300,000		
Internal combustion engine. Includes exhaust system (boat motor).	589	4,679,946		4
Lamp.	22	308,005		
Lawnmower.	4	34,335		1

	# Fires	Total $Loss	# Injuries	# Deaths
Lighter	67	2,118,190	2	
Lumber yard (exposure)	1	30,000		
Machinery, equipment, commercial and industrial. Excludes appliances/equipment	38	147,484		
Masonry chimney	3	32,000		
Masonry chimney (clay lining). - (DO NOT USE)	1			
Match	14	296,642		2
Match/lighter can not be determined	14	263,584		
Metal chimney - (DO NOT USE)	1	3,963		
Motor 1 H.P. & over. Exclude air conditioning. refridgerator. wash. machine,central heat, mowers	9	27,500	1	
Motor less than 1 H P. - See Manual (garage door opener).	2			
No Igniting Object (lightning).	39	351,652		
Open fire. Campfire, bonfire, warning flare, rubbish fire, thawing fire(exposure	687	3,386,906	6	1
Open fired broiler, portable type includes barbecue.	15	46,539	1	
Other Electrical Equip-Unclassified. (generator, video game, photocopier, sign).	7	1,000		
Other cooking unit(portable-hot plate, camp stove, toaster oven, wok, popcorn).	6	150,000		
Outside storage container, tank (exposure)	26		1	
Oven of stove, range.	11	45,277		
Panelboard, switchboard. Includes fuse, circuit breaker.	8	131,308		
Permanent electric wiring, cables (power line/junction box).	62	793,403		
Portable space heater. Includes room heater, salamander.	11	173,772		
Pressing iron. Includes ironing machine.	1	1,100		
Radio, stereo, phonograph, tape recorder.	4	10,648		
Service water heater.	2	3,266		
Smoker's Mater/Open Flame-Unclassified (molotov cocktail, hot air balloon, etc.)	11	75,000		
Smoker's material - Cigar	1			
Smoker's material - Cigarette	75	1,193,124	9	2
Smoker's material - Lighter	7	171,097	1	
Smoker's material - Match	20	243,412	1	
Smoker's material can not be determined	69	146,563	2	
Sparklers	1	8,000		
Stationary space heater (wall furnace, unit heater).	8	45,145		
Stove, range, top burner area - involving fire in pan.	109	1,139,087	3	
Stove/range/top burner area - involving fire in fryer/pot.	7	69,006	1	
Stove/range/top burner area-involving other circumstances.	13	8,700		
Switch, outlet. Includes receptacle, socket.	32	1,845,311		
Switchgear. Includes power switchgear only.	1	154,000		
Tar pot.	2			
Temporary electric wiring, cable.	2	10,000		

	# Fires	Total $ Loss	# Injuries	# Deaths
Television, picture receiving or reproducing equipment (vcr).	1			
Toaster, waffle iron.	3	46,346		
Torch, other than cutting, welding.	17	307,121		
Transformer.	1			
Washing machine.	2	75		
Welding equipment.	14	146,570		
vacuum cleaner	1	1,708		
Total	**4066**	**38,192,411**	**65**	**13**

Figure 12: Annual Fire Losses Adjusted by Consumer Price Index

Provincial Average = $48,404,827.00

Year	Estimated Loss	CPI	CPI adjusted Value
1979	29,037,247	2.249	65,304,769
1980	48,932,799	2.040	99,822,910
1981	31,138,114	1.824	56,795,920
1982	29,361,627	1.674	49,151,364
1983	31,920,418	1.572	50,178,897
1984	35,469,311	1.513	53,665,068
1985	25,747,955	1.460	37,592,014
1986	31,723,967	1.419	45,016,309
1987	33,703,293	1.352	45,566,852
1988	47,038,700	1.295	60,915,117
1989	46,066,565	1.241	57,168,607
1990	43,671,241	1.188	51,881,434
1991	38,707,867	1.129	43,701,182
1992	43,822,419	1.118	48,993,464
1993	37,032,957	1.085	40,180,758
1994	27,406,499	1.075	29,461,986
1995	25,492,885	1.046	26,665,558
1996	33,185,430	1.027	34,081,437
1997	47,249,950	1.014	47,911,450
1998	38,192,411	1.000	38,192,411

(Adjusted to 1998 dollar using Sask. CPI.)

Figure 13: Losses Adjusted by Saskatchewan CPI – 1998 Values

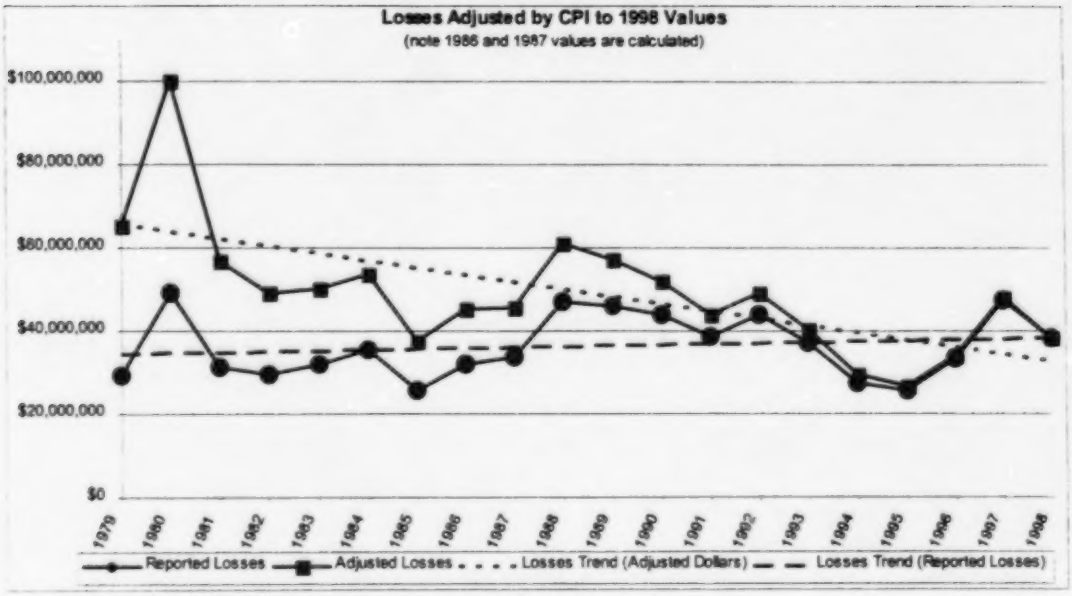


Figure 14: Trends in Deaths and Injuries – 1971 to 1998

Figure 15: 10 Year Averages

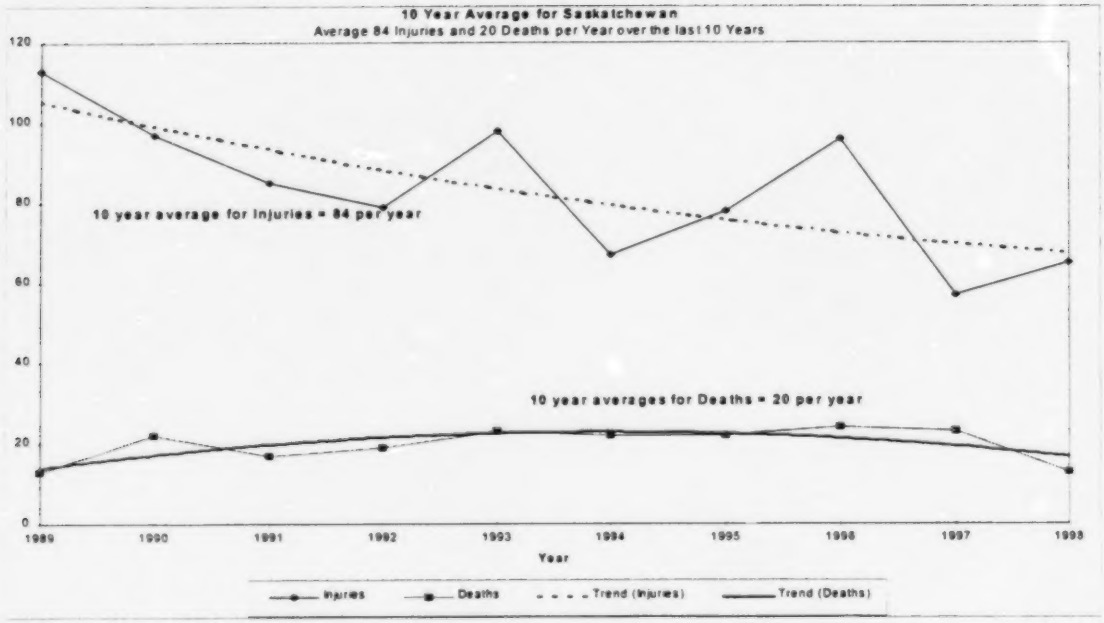


Figure 16: 28 Year Dollar Losses

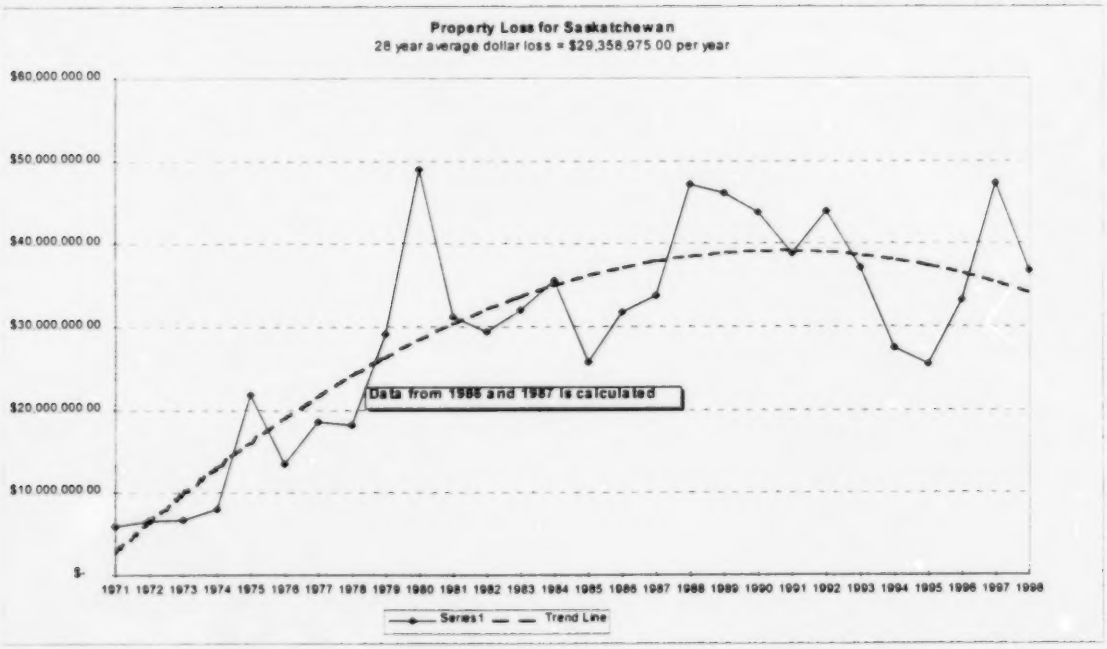


Figure 17: 28 Year Average Number of Fires

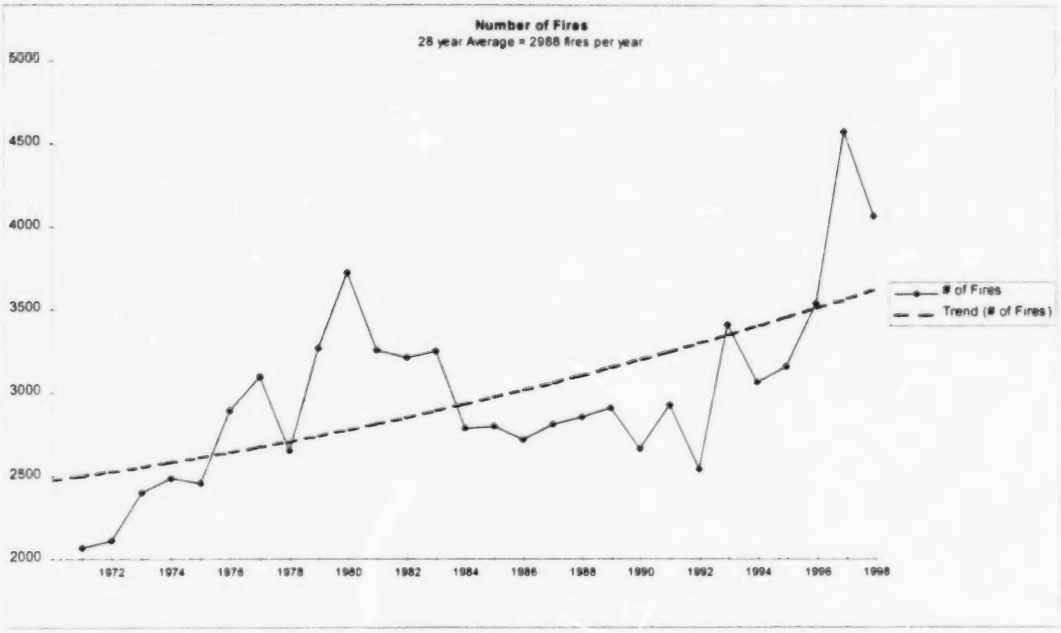


Figure 18: Annual Reported Insurance Losses

	FIRES	DEATHS	INJURIES	EST. VALUE	$ LOSS
Unreported by Insurance	**3377**	**9**	**57**	**170,829,174**	**21,368,452**
AGI WEST GATE PLAZA	1			90,000	65,000
BROUWER CLAIMS CANADA	1			168,300	10,000
CANADIAN SURETY COMPANY	5			912,900	168,066
CLAY PAGET INSURANCE	3			762,500	441,312
CO-OPERATORS	57		4	4,675,634	1,389,379
COMMERICIAL UNION INS.	1			135,000	6,937
GATEWAY ADJUSTERS	1			36,000	6,000
GENERAL ACCIDENT ASS. CO.	1			7,000,000	25,000
H.J. HEISLER	1	1	1	265,000	265,000
LIBERTY MUTUAL INS.	1			350,000	114,208
LLOYDS OF LONDON	4			282,000	93,220
LOMBARD GENERAL INS.	1			38,000	38,000
MARSH & MCLENNAN	2				5,000
MENNONITE MUTAL INS.	20			1,736,762	807,105
PORTAGE LA PRAIRIE	5			676,266	281,197
ROYAL INSURANCE CO.	7			4,278,300	281,146
SASK MUTUAL INC.	5			355,000	45,460
SGI	464	2	3	26,121,906	10,041,432
ST. PAUL INSURANCE	4			267,300	116,213
WAWANESA	103	1		6,989,601	2,623,784
WW SMITH INSURANCE	2			500	500
TOTAL	**4066**	**13**	**65**	**225,970,143**	**38,192,411**

Note: Only includes losses reported by insurance